
Analysis of Junior College Offerings

PAUL E. WEBB*

Part of a dissertation presented for the degree of
Doctor of Philosophy at Yale University

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The junior college movement, through its very rapid development during the past decade, is demanding a critical analysis of the complex problems in the related fields of secondary and higher education. Since its inception it has been a moot question as to what portion of the junior college offering should parallel the work offered in the lower divisions of four-year collegiate institutions, and what portion should be of a strictly terminal nature. Analyses of practice have been made but there has been no effort to compare offerings in junior colleges of varying sizes.

This study is concerned with the offering of thirty California junior colleges which have been divided into three groups on the basis of average daily attendance: Group I, those having an average daily attendance under 250; Group II, between 250 and 1,000; Group III, over 1,000. In making an analysis of the offerings of these junior colleges, it would have been possible to follow common practice and to tabulate the courses as announced in catalogues of the several institutions. The weakness of such a procedure, however, lies in the fact that (1) it does not differentiate between those courses offered and those actually given, and (2) it does not indicate the extent to which such courses are serving the student population. In

order to obviate these weaknesses, the data for this study was compiled from catalogues which were marked to indicate the number of students enrolled in each course during the first semester of 1931-32. These figures were also checked against cost data submitted by the respective junior colleges in a companion study.

CLASSIFICATION OF COURSES

In considering the courses which these junior colleges offered it appeared that a fourfold classification would include them all. The first group would include such academic courses as parallel those given at the University of California. The second group would include those academic courses similar in nature to those listed in the group above but modified in such a way that they do not generally carry credit which can be transferred to higher institutions. As their purpose is to serve those who will not continue with further formal education, the courses in this second group have been designated as terminal courses. The third group includes those courses which apparently have an immediate vocational objective. The fourth group contains the remaining courses, nonacademic in nature, in which any students may enroll irrespective of their classification. Although some institutions list different courses for students of each status, they are generally taught concurrently. We will therefore con-

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sider the following classification as adequate for an analysis of the courses offered by the California junior colleges:

- I. Courses paralleling the University of California: English and public speaking, foreign languages, mathematics, physical and biological sciences, social science, philosophy and psychology.
- II. Terminal academic courses: English and public speaking, foreign languages, mathematics, physical and biological sciences, social science, philosophy and psychology.
- III. Vocational courses: agriculture, aviation, clothing, commerce, journalism, mechanic arts, nursing, photography, radio.
- IV. Miscellaneous courses: art, engineering, home economics, music, orientation, physical education.

In the analysis of the curricular offering of an institution there are three measures which can be employed: (1) the number of courses offered and taught, which can be considered as a measure of the extent of choice which is available to the student body; (2) the number of semester-hours, or credit-hours, offered and taught, which can be considered as a measure of the relative importance which the institution places upon its offerings; (3) the number of students enrolled in each course, which can be considered as one measure of the extent to which an institution is economically justified in offering each course. For the purposes of this article only measures one and three will be considered.

Table I shows the number of courses of the several types offered in the different groups of junior colleges and the corresponding student enrollments in each. It is apparent from the data presented that the California junior colleges have devoted their major emphasis to preparation of their students for the pursuance of advance work in the university. When measured in terms of courses offered, 47 per cent of all work offered parallels the academic courses at the University of California. When it is considered that much of the work in the departments of art, music, and engineering, which has been classified here as miscellaneous, is also organized on the same basis as that of the state university, it is safe to assume that at least two-thirds of the offerings of the junior colleges duplicate university courses. Only 12 per cent of the work can be classified as terminal and 14 per cent as vocational.

INFLUENCE OF SIZE

Even more significant than these figures is the change in emphasis which is noted upon comparison of institutions of different sizes. Of the courses offered in junior colleges under 250 enrollment, 58 per cent of it parallels the academic work of the University of California, whereas in institutions of between 250 and 1,000 enrollment it drops to 50 per cent, and in institutions of over 1,000 to 43 per cent. Vocational offerings also show a percentage decline in these groups, being 18 per cent, 15 per cent, and 12 per cent, respectively. A percentage gain is shown by terminal and miscellaneous offerings. Considering the same data from a different

point of view we note that 93 per cent of all the academic work offered in small junior colleges parallels courses at the University of California; in medium-sized institutions the corresponding figure is 88 per cent; and in large institutions it is 66 per cent.

As the lower-division courses

the analysis above that the junior college is seriously neglecting one of its major functions, that of providing an opportunity for the completion of general education. It is noteworthy that the specialized character of the offerings becomes proportionately greater as the institutions decrease in size.

TABLE I

NUMBER OF JUNIOR COLLEGES OFFERING COURSES OF SEVERAL TYPES WITH NUMBER AND PERCENTAGE OF COURSES AND ENROLLMENT IN THEM

		Courses		Enrollment	
		Number	Percent- age	Number	Percent- age
GROUP I—SMALL					
Parallel university	12	212	58	4,636	65
Terminal	7	17	5	305	4
Vocational	12	64	18	918	13
Miscellaneous	12	70	19	1,314	18
Total		363	100	7,173	100
GROUP II—MEDIUM					
Parallel university	14	608	50	24,068	63
Terminal	14	107	9	2,903	8
Vocational	13	181	15	3,937	10
Miscellaneous	14	318	26	7,436	19
Total		1,214	100	38,344	100
GROUP III—LARGE					
Parallel university	4	288	37	14,823	38
Terminal	4	161	20	10,443	27
Vocational	4	94	12	4,235	11
Miscellaneous	4	249	31	9,434	24
Total		792	100	38,935	100
ALL INSTITUTIONS					
Parallel university	30	1,108	47	43,527	52
Terminal	25	285	12	13,651	16
Vocational	29	339	14	9,090	11
Miscellaneous	30	637	27	18,184	21
Total		2,369	100	84,452	100

which the University of California provides in its several academic departments are largely preparatory to advanced work in those departments, and in the majority of instances contain material of a specialized character, it is evident from

The extent to which the junior colleges are offering a balanced program is indicated in Table II. Criteria as to the proportionate amount of work which should be given in each of the academic departments may be obtained from

studies by Koos¹ and Woods² as reported by Eells.³

TABLE II
OFFERINGS OF JUNIOR COLLEGES IN
TERMS OF NUMBER AND PERCENTAGE
OF CREDIT HOURS IN WHICH STUDENTS
ARE ENROLLED

Courses	Number of Junior Colleges	Credit- Hours	Per- cent- age
<i>Parallel university</i>			
English	30	472	13
Foreign language	29	947	26
Mathematics	30	353	10
Science	30	1,015	28
Social science	30	620	17
Philosophy, psychology	30	231	6
<i>Terminal</i>			
English	22	252	31
Foreign language	10	123	15
Mathematics	14	85	11
Science	13	131	16
Social science	19	193	24
Philosophy, psychology	3	24	3
<i>Vocational</i>			
Aviation	10	65	7
Agriculture	4	44	5
Clothing	1	3	0.3
Commerce	24	649	67
Journalism	22	99	10
Mechanics	9	65	7
Nursing	4	33	3
Photography	1	2	0.2
Radio	3	11	1
<i>Miscellaneous</i>			
Art	26	285	22
Engineering	24	355	28
Home economics	12	113	9
Music	27	423	33
Orientation	20	31	2
Physical education	14	84	7

It is interesting to note from Table III that at those points where Koos and Woods most nearly agree in their suggestions as to the pro-

portionate amount of time which should be devoted to particular departments (English and Public Speaking, if considered together; and Philosophy and Psychology, if considered together) the actual practice in California junior colleges bears out their suggestions.

TABLE III
ACADEMIC PREPARATORY JUNIOR COLLEGE
CURRICULA SUGGESTIONS OF KOOS AND
WOODS AS COMPARED WITH DATA OF
THIS STUDY

	Koos		Woods		Present Study
	Semester- Hours	Per- centage	Semester- Hours	Per- centage	Per- centage
English	24	10	18	7	13
Public speak- ing	4	2	12	5	..
Languages, modern ...	46	20	84	32	26
Social sci- ences	54	23	32	12	17
Natural sci- ences	63	28	56	21	28
Mathematics.	21	9	38	14	10
Philosophy..	9	4	15	6	6
Psychology..	4	2	6	2	..
Physical edu- cation	(4)	2	4	1	..
Total	229	100	265	100	100

In the two instances where they disagree most widely (modern languages and social sciences) the actual practice in California falls midway between their suggestions. At the other two less widely divergent points of disagreement (natural science and mathematics) the actual practice bears out the suggestions of Koos. It may be concluded that as a whole the preparatory offering of junior colleges in California is well balanced.

NONACADEMIC COURSES

Table II also shows the emphasis which the junior colleges are plac-

¹ L. V. Koos, *The Junior College* (University of Minnesota, Minneapolis, Minnesota, 1924), pp. 61-63.

² Baldwin M. Woods, "Junior College Preparation for University Work," *Bulletin of the Pacific Coast Association of Collegiate Registrars* (March 1929), p. 34.

³ W. C. Eells, *The Junior College* (Houghton Mifflin Company, Boston, Massachusetts, 1931), p. 480.

ing upon the terminal, the vocational, and other nonacademic courses. The major emphasis in terminal courses is in the fields of English and social sciences.

Although there are nine vocational fields represented, with one exception, the offerings in each are small and scattered. There are, however, junior colleges which are offering well-organized curricula in nursing and agriculture, but in general, vocational courses appear in isolation, apparently being offered because of the interest of an instructor, rather than as a part of a well-organized curriculum.

Commerce represents the one vocational field for which provision is widely made. That this field is quite generally limited to what might be termed secretarial training is indicated by the great predominance of courses in stenography, typewriting, and office practice, which a more detailed analysis of the data reveals. It is also worthy of note that much of this commercial training in the smaller junior colleges is carried on in regularly organized high-school classes.

The data quite clearly indicate that provision for vocational training at levels above the trades but below the professional and technological schools of university grade is only in the initial stages of fulfillment at the junior college level. The field of training commonly designated as semiprofessional has yet to be developed.

MINIMUM PREPARATORY CURRICULUM

In considering the academic offering of the junior college it is desirable to know what would constitute a desirable minimum preparatory curriculum. Koos suggests a

minimum offering of 225 hours as adequate for a "group of students representing a legitimate range of liberal arts needs and interests," based largely upon the actual offerings in over one hundred liberal arts colleges. Woods recommends a minimum offering of 261 (exclusive of physical education) hours, which would satisfy the major choice of 78 per cent of the students at the University of California. Based upon semester offerings these recommendations would be 112 and 130 semester-hours, respectively.

The academic offerings in terms of semester-hours in the small junior colleges range from 46 to 82, with an average of 60. The largest offering of 82 semester-hours falls 26 per cent below the minimum set by Koos and 37 per cent below that set by Woods. Of the medium-sized junior colleges, the smallest which is offering an adequate preparatory curriculum is one which has an enrollment of 366. Woods, in making his recommendation, assumed a junior college of 300. From the situation in California, it would be safe to assume that a junior college with less than 300 students cannot offer an "adequate" preparatory curriculum.

RELATION TO CLASS SIZE

The effect which the offering of the junior college has on the size of the classes which it is able to maintain is summarized in Table IV, which shows the ratio of class enrollment to number of courses offered. If only one class were offered for each course the resultant ratio would be the maximum figure which the average class size could reach. From the data here pre-

sented we note that it would be possible for the median junior college to maintain an average class size of 30.5 for all courses offered, of 33.3 and 27.0 for preparatory and miscellaneous courses, respectively;

TABLE IV

MEDIAN RATIO OF ENROLLMENTS TO COURSES OFFERED IN JUNIOR COLLEGES OF DIFFERENT SIZES

Courses	Junior Colleges			
	All	Group I	Group II	Group III
Parallel university	33.3	21.3	45.0	47.3
Terminal	22.6	10.0	34.6	37.6
Vocational	18.5	15.6	29.8	39.5
Miscellaneous	27.0	18.5	43.5	40.3
All courses	50.5	19.1	32.5	48.1

but of only 22.6 and 18.5 for terminal and vocational courses, respectively. Great differences, however, exist between the possibilities in the three groups of institutions. The largest possible average class size which the median junior college of Group I could maintain would be 19.1 and only two junior colleges of this group could maintain an average above 25. Terminal, vocational, and miscellaneous ratios tend to be still lower, but this is partially accounted for by the fact that in several of these institutions a small number of students are enrolled in high-school courses for junior college credit.

In Group II the median ratio is 32.5, only three of the junior colleges falling below 25. It would thus be possible for medium-sized junior colleges to maintain an average class size of 25 and to continue to offer their range of courses. For the large institution represented in Group III the average class size (as long as it is under 40) would in no

way be conditioned by the range of their offerings.

A more detailed analysis of the offerings of the group of small junior colleges shows that the average size of mathematics classes cannot exceed 9, and foreign language classes 18. There is even insufficient enrollment in English and science classes to maintain an average class size of 25. On the basis of the offerings of these junior colleges in comparison with the enrollments in these offerings, it would be impossible for the enrollment in 70 per cent of the courses to exceed 25.

The small junior colleges are facing a dilemma: On the one hand their curricula, when judged in the light of minimum desirable standards, are inadequate to serve the purposes (preparation for advanced work) for which they were designed. On the other hand, the number of students enrolled in the courses of these curricula is insufficient to make possible the maintenance of classes of a desirable minimum average size. Any increase in offerings (a necessary step for the attainment of desirable standards) would so further reduce the ratio of enrollments to offerings that it would still further limit the possibility of maintaining classes of an acceptable average size. For the small junior college it would appear that an adequate preparatory offering and a desirable minimum average class size are incompatible. The solution calls either for an increase of enrollment or for an adjustment of the curriculum to less ambitious purposes. The first alternative implies the discontinuance of the small junior college; the latter, a reconsideration of the functions of the junior college.

